WINTER POLLUTION SEASON

Air quality is measured by converting the concentration of the particulate and carbon monoxide pollutants in the air to the Air Quality Index (AQI).

301 to 500 is hazardous

201 to 300 is very unhealthy

151 to 200 is unhealthy

101-150 is unhealthy for sensitive groups

51-100 is moderate

0-50 is good

The most significant number of the scale is 100, which coincides with the upper limit of the pollution concentration that is considered to be clean air.

EPA has two standards for particulate matter. The first standard is based on a 24-hour average and the second is an annual standard.

Maricopa County will continue to issue high air pollution advisories when concentrations of particulate pollution are forecast to reach 120 micrograms per cubic meter or 85 AQI for a 24-hour period. The advisories for PM-10 will only be issued from October through February each year.

CURRENT STATUS OF PARTICULATE MATTER

Particulates are a year-round concern in Maricopa County. The larger particulate matter, PM-10, can be present in high winds or stagnant air conditions. The fine particulates, referred to as PM 2.5, are more visible during the winter months when the temperature inversion traps the pollutants close to the ground, forming the "Brown Cloud." Their origins are vehicle emissions, unpaved roads, farming, industry, and fireplaces.

Particulate Matter Pollution consists of very small liquid and solid particles floating in the air. It is a "grab bag" of pollutants including dust, smoke, soot, and particulates that form from gaseous pollutants. The greatest concern to the public health is particulates small enough to be inhaled into the deepest parts of the lung. These coarse particulates are less than 10 microns in diameter or about 1/7th the thickness of a human hair and are known as PM-10.

The Environmental Protection Agency (EPA) adopted new National Ambient Air Quality Standards for PM-10 and PM 2.5 on July 16, 1997. In May of 1999, the U.S. Court of Appeals for the District of Columbia Circuit vacated the revised PM standard and subsequently reinstated the original PM-10 standard. For more information on the court decision visit EPA's web site at www.epa.gov/ttn/oarpg/naapsfin/. Subsequently, the U.S. Supreme Court has ruled on some other aspects of the litigation. However, the new standards are currently on hold pending resolution of the remaining issues in the litigation.

The EPA reclassified Maricopa County's PM-10 non-attainment area to "serious" on June 10, 1996. In August of 1998, the EPA promulgated a Federal Implementation Plan (FIP) to address the area's continuing particulate matter non-attainment problems. Maricopa County developed a plan to address program deficiencies, including the deployment of 10 additional employees to enforce dust control rules. In the meantime, a serious area plan for the Maricopa County PM-10 non-attainment area has been submitted to EPA. The plan includes a request for an extension until 2006 to meet the national standards. The attainment date for the Maricopa County area is currently December 31, 2001. The EPA proposed to approve the serious area plan in April, 2000 and September, 2001. Under a consent decree EPA must finalize action on the plan by January 14, 2002.

For the PM-10 24-hour standard, Maricopa County reported 12 exceedance days in 1997, four in 1998, nine in 1999 and eight in 2000.

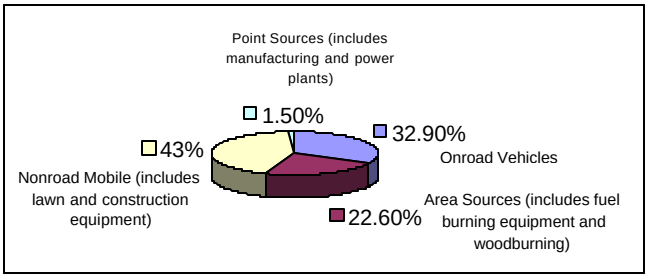
WHY IS PARTICULATE MATTER HARMFUL?

When inhaled, PM-10 invades the respiratory system's natural defenses and lodges deep in the lungs. Normal body defenses (coughing and sneezing) do not remove these harmful pollutants.

PM-10 can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung disease, and reduce the body's ability to fight infections.

Certain people are especially vulnerable to adverse health effects from PM-10 emissions. These sensitive groups include children, the elderly, exercising adults, and those suffering from asthma and bronchitis

WHERE DOES PARTICULATE MATTER COME FROM?



Sources of particulate matter include:

- Re-entrained dust from traffic on paved and unpaved roads
- Off-road vehicles, such as construction equipment
- Wild fire, brush or waste burning
- Wood Stoves

**1995 Particulate Matter Emissions Chart

WHAT STRATEGIES ARE IN THE SERIOUS AREA PLAN?

Some of the key measures in the revised 1999 Serious Area Particulate Plan for PM-10 to reduce emissions include:

- Paving unpaved roads.
- Strengthening fugitive dust control programs.
- Installing landscaping, barriers, and fencing to reduce windblown dust.
- Utilizing PM-10 efficient street sweepers.
- Apply curbing, paving, or stabilizing shoulders on paved roads and unpaved access points.
- Employ clean gasoline (long-term and winter fuel reformulation).
- Implementing programs to reduce emissions from wood stoves and fireplaces.
- Standardizing the clean burning fireplace ordinances, which limit the type of devices that can be used in new construction.
- Maricopa County is continuing its partnership with Paradise Valley Community College to provide pollution prevention classes for industry.

WHAT CAN YOU DO TO REDUCE PM-10?

- Reduce travel, carpool, bus, or telecommute, especially on days when a high air pollution advisory is issued.
- Avoid vigorous physical activity on days that have poor air quality.
- Avoid using leaf blowers and other dust producing equipment.
- Drive slowly on unpaved roads and other dirt surfaces.
- Don't use a wood stove or fireplace on days with poor air quality.
- Stabilize bare earth with gravel, vegetation or restrict access to avoid disturbing soil.
- Avoid allowing diesel engines to idle.

CURRENT STATUS OF CARBON MONOXIDE

The fact that Maricopa County was able to go without a carbon monoxide (CO) violation since January of 1996 only means we are one step closer to ultimately be redesignated to attainment. We must continue efforts to reduce pollutants to avoid future exceedances.

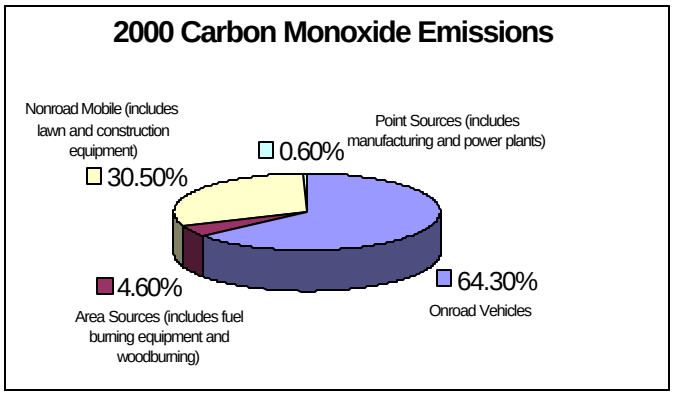
Government and organizations across the board continue to strive to meet clean air standards for CO, which are designed to protect the public health. The invisible, odorless gas robs the body's ability to use oxygen.

The U.S. Environmental Protection Agency (EPA) reclassified Maricopa County to a serious non-attainment area for carbon monoxide August 28, 1996. A serious area plan was submitted to EPA July 1999. The plan included transportation control strategies, clean burning fuels and measures to offset growth in emissions due to growth in vehicle miles traveled.

In July 1999, the Governor requested a determination of attainment from EPA based on two consecutive years without a monitored violation. Concentrations of CO greater than 9 parts per million averaged over 8-hours are counted as an exceedance. However, the attainment status for Maricopa County is based on no more than one exceedance in each of two consecutive years. EPA has indicated that they will process the request along with the serious area CO Plan.

If Maricopa County were to exceed the CO standard this winter (fall of 2001 through spring 2002), EPA would place the attainment determination request on hold. There must be two years of clean data at the time of redesignation. Maricopa County would have to wait two more years to file for redesignation for attainment.

WHERE DOES CARBON MONOXIDE COME FROM?



Cooler temperatures and stagnant air in the wintertime hold pollutants in the Valley causing increased levels of carbon monoxide

Most carbon monoxide comes from vehicles. However, wood fires, barbecues, gasoline lawn mowers and garden equipment also contribute to the pollution problem in the Valley.

WHY IS CARBON MONOXIDE HARMFUL?

Carbon Monoxide acts as an oxygen deprivation agent. Healthy individuals may not experience physical symptoms; however, people with heart conditions and other chronic illnesses may experience some discomfort.

On high pollution days, when carbon monoxide approaches the unhealthy level, persons with asthma or respiratory problems can experience difficulty breathing. Experiencing reduced lung capacity is like trying to breathe through a straw for five minutes. Persons with heart conditions or other chronic illness should reduce their outdoor activity.

CONTACTS

Priscilla Hanrahan
RPTA/Valley Metro
602.534.1809
602.647.9551 (cell)
For questions on air quality programs and strategies

Laura Devany
Maricopa County Environmental Services
602.506.6611
602.420.7874 (pager)
Air Quality Data

Kelly Taft
MAG
602.452.5020
602.871.3691 (pager)
For questions regarding regional air quality planning

Valley Metro
Regional Public Transportation Authority

CLEAN AIR CAMPAIGN

MARICOPA ASSOCIATION of GOVERNMENTS

WHAT STRATEGIES ARE IN PLACE TO REDUCE CO?

To help reduce CO, there are a number of air quality initiatives in place in Maricopa County.

- The Maricopa County Vehicle Repair & Retrofit Program is designed to encourage vehicle owners to repair or retrofit their high emitting vehicles to meet the mandated emissions standards. Since the programs' inception in January of 1999, 2,038 vehicles have been fixed.
- The County along with the Maricopa Association of Governments (MAG) and the cities have standardized clean burning fireplace ordinances, which limit the type of devices that can be used in new construction.
- Maricopa County's Trip Reduction Program requires businesses with 50 or more employees to submit plans to reduce single-occupant vehicle miles traveled to and from work.
- Instituting no burn days during high air pollution advisories.
- A smoking vehicle hotline has been set up to identify and notify car owners whose cars may be contributing emissions and may need repairs. Approximately 8,000 calls were reported in fiscal year 2001. The number is 602.506.6616.
- CARB phase 2 Reformulated Gasoline is implemented during the winter months.
- More stringent emission standards for the I/M 240 Vehicle Emissions Test began January 2000.
- The Clean Air Campaign is a public education and marketing campaign that encourages the use of alternative forms of transportation and other pollution reducing strategies.

WHAT CAN YOU DO TO REDUCE CO?

- Keep your car tuned.
- Keep tires inflated to proper levels.
- Change your oil every 3,000 to 5,000 miles.
- For up-to-date air quality conditions visit www.maricopa.gov/envsvc/air/airday.asp.
- Carpool, telecommute or take the bus. To find a carpool or vanpool partner, call Valley Metro Rideshare at 602.262.RIDE or register online at ShareTheRide.com.
- Reduce driving, especially on days when there is a high pollution advisory.
- Don't burn firewood in fireplaces when an advisory has been issued.
- Combine errands to reduce "cold starts" on your car.
- Avoid allowing diesel engines to idle.

Information provided by MAG and Maricopa County Environmental Services Department

The Clean Air Campaign is sponsored by the Arizona Departments of Environmental Quality and Transportation, Maricopa Association of Governments, Maricopa County, Greater Phoenix Chamber of Commerce and the Regional Public Transportation Authority